

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

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PCT

WRITTEN OPINION

(PCT Rule 66)

Applicant's or agent's file reference 5280.01		Date of Mailing (day/month/year) 13 AUG 2001
International application No. PCT/US00/24819		REPLY DUE within TWO months from the above date of mailing
International filing date (day/month/year) 08 SEPTEMBER 2000	Priority date (day/month/year) 08 SEPTEMBER 1999	
International Patent Classification (IPC) or both national classification and IPC IPC(7): HO4N 7/14 and US Cl.: 348/14.08		
Applicant DISCOVERY COMMUNICATIONS, INC.		

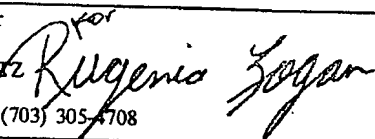
1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application
3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).~~

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 08 JANUARY 2002

Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer <div style="text-align: center;">  CURTIS KUNTZ </div> Telephone No. (703) 305-4708
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Form PCT/IPEA/408 (cover sheet) (July 1998) *

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WAW

I. Basis of the opinion

1. With regard to the elements of the international application: *

- ☒ the international application as originally filed
☒ the description:
pages 1-32
pages NONE, as originally filed
pages NONE, filed with the demand
☒ the claims:
pages 33-42
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of _____
☒ the drawings:
pages 1-10
pages NONE, as originally filed
pages NONE, filed with the demand
pages _____, filed with the letter of _____
☒ the sequence listing part of the description:
pages NONE
pages NONE, as originally filed
pages NONE, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
☒ the claims, Nos. NONE
☒ the drawings, sheets/fig NONE

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)

Claims (Please See supplemental sheet) YES
 Claims (Please See supplemental sheet) NO

Inventive Step (IS)

Claims (Please See supplemental sheet) YES
 Claims (Please See supplemental sheet) NO

Industrial Applicability (IA)

Claims (Please See supplemental sheet) YES
 Claims (Please See supplemental sheet) NO

2. citations and explanations

Claims 1-3, 6-7, 9-10, 13-15, 18-19, 21, 24-35, 40, 49-53, 59-62, 69-70, 72, 74-82 lack novelty under PCT Article 33(2) as being anticipated by Theodor et al. (WO 99/44144, hereinafter Theodor).

Regarding claims 1, 13, 24, 50, and 74, Theodor discloses an electronic device, preferably an electronic book comprising: memory in which electronic data representing an electronic book can be stored, a video display, connected to the memory, from which the electronic book can be displayed, a speaker, a microphone, a transmitter connected to the microphone and a receiver connected to the speaker, wherein transmitter and the receiver have sufficient bandwidth to accommodate a conference call, whereby the electronic book viewer can be utilized (figs. 3 and 10, entire document), a processor connected to the memory, the video display, the speaker, the microphone, the receiver and the transmitter, conference calling software executing on the processor, where electronic book viewer can be utilized in a conference call (fig. 10), at least one end equipment, and an interconnection network (fig. 1) capable of linking two or more of the at least one electronic book viewer and at least one equipment in a conference call, displaying an electronic book on the electronic book viewer (fig. 10), participating in a conference call while viewing the electronic book and communicating information content of the conference call with the electronic book viewer (figs 2-3, and 10, entire document).

Regarding claims 2-3, 6-7, 9, 10, 14-15, 18-19, 21, 25-35, 40, 49, 51-53, 59-62, 69-70, 72, 75-82, Theodor further teaches the following: video display is connected to the receiver, and the conference call includes a video received by the electronic book viewer, a camera (3, fig. 10) connected to the transmitter (15, fig. 12), whereby conference call includes video transmitted from the electronic book viewer (fig. 10), transmitter and receiver comprise one of group consisting of a wireless receiver, CDMA transceiver, a cable television receiver, PSTN modem, satellite receiver (figs. 1 and 12), electronic book viewer is portable (fig. 10), video display is connected to the receiver. (Continued on Supplemental Sheet.)

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

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TIME LIMIT:

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

V. 1. REASONED STATEMENTS:

The opinion as to Novelty was positive (YES) with respect to claims 4-5, 8, 11-12, 16-17, 20, 22-23, 36-39, 41-48, 54-58, 63-68, 71, 73.

The opinion as to Novelty was negative (NO) with respect to claims 1-3, 6-7, 9-10, 13-15, 18-19, 21, 24-35, 40, 49-53, 59-62, 69-70, 72, 74-82.

The opinion as to Inventive Step was positive (YES) with respect to claims NONE.

The opinion as to Inventive Step was negative (NO) with respect to claims 1-82.

The opinion as to Industrial Applicability was positive (YES) with respect to claims 1-82.

The opinion as to Industrial Applicability was negative (NO) with respect to claims NONE.

V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):

and conference call includes video received by the electronic book viewer, a camera (3, fig. 10) connected to the transmitter, whereby the conference call includes video transmitted from the electronic book viewer, one end equipment is another electronic book viewer, interconnection network comprises a direct connection network between the at least one electronic viewer and at least one end equipment (fig. 10), direct connection is a hardwired connection from the group consisting of in-home telephone wiring, in-home power wiring, coaxial cable, and a computer network (figs. 1 and 10), connection is a wireless connection (fig. 10), wireless connection comprises at least one from the group consisting of a radio frequency link and infrared link (figs. 10 and 12), interconnection network comprises: library unit, and a connection between the library unit and one or more of the at least one electronic book viewers (fig. 1), a processor connected to the memory, the video display, the speaker, and the microphone and conference calling software for execution on the processor (figs. 2-3), initiating a conference call to one or more called parties while viewing the electronic book (fig. 10), marking a current page position in the electronic book in response to the initiating step (figs. 4-9), call is related to the electronic book, electronic book is a merchandise catalog (fig. 9), electronic book contains an advertisement of a business and the called party is the business (fig. 9), conference call is a distance learning conference call and electronic book pertains to the learning (fig. 8), customizing the conference call, learning material comprises: textbook, outline (fig. 8), displaying a video image related to the video signal on the electronic book viewer, transmitting audio information from the electronic book viewer (fig. 10), audio information is a question, storing at some of the conference call, retrieving the stored conference call, converting speech to the text (entire document).

Claims 4-5 and 16-17 lack an inventive step under PCT Article 33(3) as being obvious over Theodor in view of Marasovich et al. (WO 94/07327, hereinafter).

Regarding claims 4-5 and 16-17, Theodor does not teach the following: camera is electronically controllable and receiver receives commands to control the camera.

However, Marasovich discloses method and apparatus for on-screen camera control in video conference equipment which teaches the following: camera is electronically controllable and receiver receives commands to control the camera (figs. 2-3, page 6 lines 4-27).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Theodor's system to provide for the following: camera is electronically controllable and receiver receives commands to control the camera as this arrangement would facilitate camera adjustment in a video conference to position the camera and zoom the camera to facilitate video conference as taught by Marasovich.

Claims 8 and 20 lack an inventive step under PCT Article 33(3) as being obvious over Theodor in view of Henderson et al. (WO 99/18701, hereinafter Henderson).

Regarding claims 8 and 20, Theodor does not teach the following: the receiver has a bandwidth greater than the bandwidth of the transmitter.

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

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However, Henderson discloses splitterless digital subscriber line communication system which teaches the following: the receiver has a bandwidth greater than the bandwidth of the transmitter (page 14, lines 4-21).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Theodor's system to provide for the following: the receiver has a bandwidth greater than the bandwidth of the transmitter as this would facilitate downloading data at a higher rate from video sources to the user terminal as taught by Henderson.

Claims 11-12 and 22-23 lack an inventive step under PCT Article 33(3) as being obvious over Theodor in view of Munyan (US PAT: 5,761,485).

Regarding claims 11-12 and 22-23, Theodor teaches the following: conference call includes video received by the electronic book viewer and displaying video conference call (fig. 10); but he does not explicitly teach the following: video display comprises two screens, and displaying electronic book on a first screen and displaying conference call on a second screen.

However, Munyan discloses personal electronic book system which teaches two display screen comprising two screens for displaying information (20 and 30, figs. 1-2, col. 6 lines 22-34).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Theodor's system to provide for the following: video display comprises two screens, and displaying electronic book on a first screen and displaying conference call on a second screen as arrangement would provide two screens to display information to suite user needs.

Claims 36-39 and 54-58 lack an inventive step under PCT Article 33(3) as being obvious over Theodor in view of D'Agostino (WO 97/41688).

Regarding claims 36-39 and 54-58, Theodor teaches electronic book viewing capability (fig. 10) and merchandise catalog (fig. 9); but he does not teach the following: set-top terminal connected to the library unit, a video display system connected to the set top terminal via two way communication path, cable television video distribution system, direct broadcast television system, directory of call initiation data and an entry of the directory relates to at least one of the one or more called parties, personalized directory, public directory, directory comprises information concerning availability of conference calling features for the entry, conference calling features comprise at least one selected from the group consisting of audio capability, video reception capability, video transmission capability.

However, D'Agostino discloses video directory entertainment and marketing method and apparatus which teaches the following: set-top terminal connected to the library unit, a video display system connected to the set top terminal via two way communication path, cable television video distribution system, direct broadcast television system, directory of call initiation data and an entry of the directory relates to at least one of the one or more called parties, personalized directory, public directory, directory comprises information concerning availability of conference calling features for the entry, conference calling features comprise at least one selected from the group consisting of audio capability, video reception capability, video transmission capability (fig. 1, page 7 lines 13-37, page 8 lines 1-5, page 9 lines 10-13, page 15 lines 11-19, page 20 lines 25-30).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Theodor's system to provide for the following: set-top terminal connected to the library unit, a video display system connected to the set top terminal via two way communication path, cable television video distribution system, direct broadcast television system, directory of call initiation data and an entry of the directory relates to at least one of the one or more called parties, personalized directory, public directory, directory comprises information concerning availability of conference calling features for the entry, conference calling features comprise at least one selected from the group consisting of audio capability, video reception capability, video transmission capability as this arrangement would enable the user to access various goods and services as taught by D'Agostino (page 6 lines 31 to page 32 line 12).

Claims 41-48 lack an inventive step under PCT Article 33(3) as being obvious over Theodor in view of Kerr (US PAT: 5,844,600).

Regarding claims 41-48, Theodor does not teach the following: interconnection network comprises a central combining node, central combining node comprises: a video combiner, an audio signal summation module, a switch, controller, signalling module, memory capable of storing components of the conference call, stored components of the

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

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conference call comprises at least one selected from the group consisting of an audio signal, a video signal, a program file, a data file, a text file etc.

However, Kerr methods and apparatus and systems for transporting multimedia conference data streams through a transport network which teaches the following: interconnection network comprises a central combining node, central combining node comprises: a video combiner, an audio signal summation module, a switch, controller, signalling module, memory capable of storing components of the conference call, stored components of the conference call comprises at least one selected from the group consisting of an audio signal, a video signal, a program file, a data file, a text file etc (fig. 2, col. 4 lines 27-67, col. 5 lines 1-28, col. 7 lines 53-62, fig. 7).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Theodor's system to provide for the following: interconnection network comprises a central combining node, central combining node comprises: a video combiner, an audio signal summation module, a switch, controller, signalling module, memory capable of storing components of the conference call, stored components of the conference call comprises at least one selected from the group consisting of an audio signal, a video signal, a program file, a data file, a text file etc as this arrangement would provide means for processing video conference information at a central node and distribute information to the participating terminals as taught by Kerr.

Claims 63-67 lack an inventive step under PCT Article 33(3) as being obvious over Theodor in view of Shishino (JP410285568A).

Regarding claims 63-67, Theodor does not teach the following: dynamically adding or dropping components to the conference call, storing one or more components of the conference call, storing step is performed at the electronic viewer, storing step is performed at a node in a network connecting the call, receiving one or all of the stored components of the conference call after termination of the conference call.

However, Shishino discloses conference communication system which teaches the following: dynamically adding or dropping components to the conference call, storing one or more components of the conference call, storing step is performed at the electronic viewer, storing step is performed at a node in a network connecting the call, receiving one or all of the stored components of the conference call after termination of the conference call (see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Theodor's system to provide for the following: dynamically adding or dropping components to the conference call, storing one or more components of the conference call, storing step is performed at the electronic viewer, storing step is performed at a node in a network connecting the call, receiving one or all of the stored components of the conference call after termination of the conference call as this arrangement would provide keep permanent record of conference proceedings for subsequent use of the conferees.

Claim 68 lack an inventive step under PCT Article 33(3) as being obvious over Theodor in view of Fujioka (JP408228328A).

Regarding claim 68, Theodor does not teach the following: authorizing access to the stored components of the conference call before the retrieving step.

However, Fujioka discloses video conference terminal equipment which teaches the following: authorizing access to the stored components of the conference call before the retrieving step (see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Theodor's system to provide for the following: authorizing access to the stored components of the conference call before the retrieving step as this would facilitate to control access to the stored information for authorized users as taught by Fujioka.

Claims 71 and 73 lack an inventive step under PCT Article 33(3) as being obvious over Theodor in view of Inagaki (JP408051614A).

Regarding claims 71 and 73, Theodor does not teach the following: displaying identification of a caller or calling equipment, displaying step is performed subsequent to the initiation of the participating step.

However, Inagaki discloses a video conference system and picture transmitter which teaches the following: displaying identification of a caller or calling equipment, displaying step is performed subsequent to the initiation of the

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

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participating step (see abstract).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Theodor's system to provide for the following: displaying identification of a caller or calling equipment, displaying step is performed subsequent to the initiation of the participating step as this would facilitate to easily confirm the video conference participants as taught by Inagaki.

----- NEW CITATIONS -----

WO 99/44144 A1 (HEUTSCHI THEODOR) 02 SEPTEMBER 1999,
US 5,761,485 A (MUNYAN) 02 JUNE 1998,
US 5,844,600 A (KERR) 01 DECEMBER 1998,
WO 94/07327 A1 (MARASOVICH et al.) 31 MARCH 1994,
WO 99/18701 A1 (HENDERSON et al.) 15 APRIL 1999,
WO 97/41688 A1 (D'AGOSTINO) 06 NOVEMBER 1997,
JP 410285568A (SHISHINO) 23 OCTOBER 1998,
JP 408228328A (FUJIOKA) 03 SEPTEMBER 1996,
JP 408051614A (INAGAKI) 20 FEBRUARY 1996,